AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1. (Previously Presented) An improved packaging for establishing optimum atmospheric conditions for respiring produce, comprising:

a non-porous polymeric material;

a set of microperforations on said polymeric material, wherein said set of microperforations are drill holes and based on a number and a size of said microperforations, control and maintain said optimum atmospheric conditions within specified O_2 and CO_2 concentrations for said respiring produce, said optimum atmospheric conditions containing less than about 20.9% O_2 and greater than about 0.03% CO_2, wherein said polymeric material provides a total O_2 Flux ranging from 150 cc/day-atm to 5,000,000 cc/day-atm and wherein each of said microperforations has an average diameter between 110 and 400 microns and said set of microperforations are placed in a registered target area on said polymeric material, said registered target area being a finite region on said polymeric material.

Claim 2. (Previously Presented) The improved packaging material according to claim 1, wherein said polymeric material is selected from the group consisting of polyethylene, polypropylene, polyester, nylon, polystyrene, styrene butadiene, cellophane, and polyvinyl chloride, in monolayers, coextrusions, or laminates.

Claim 3. (Original) The improved packaging material according to claim 1, wherein said polymeric material is heat-sealable.

Claim 4. (Original) The improved packaging material according to claim 1, wherein said polymeric material has a thickness in the range of 0.4 to 8 mil.

Claim 5. (Canceled)

Claim 6. (Original) The improved packaging material according to claim 1, wherein said polymeric material provides a total O_2 Flux ranging from 200 cc/day-atm to 1,500,000 cc/day-atm.

Claim 7. (Original) The improved packaging material according to claim 1, wherein said polymeric material forms a bag.

Claim 8. (Previously Presented) The improved packaging material according to claim 1, wherein said polymeric material is a heat sealable film forming a lid.

Claim 9. (Original) The improved packaging material according to claim 1, wherein said polymeric material is formed into a semi-rigid container with a thickness greater than 25 mil.

Claim 10. (Previously Presented) The improved packaging material according to claim 7, wherein said bag is substantially enclosed with a top seal, a bottom seal, and a pair of side seals, and wherein said registered target area is within one-quarter distance from said top seal of said bag.

Claim 11. (Previously Presented) The improved packaging material according to claim 7, wherein said bag is substantially enclosed with a top seal, a bottom seal, and a pair of side seals, and wherein said registered target area is within one-third distance from said top seal of said bag.

Claim 12. (Previously Presented) The improved packaging material according to claim 1, wherein said registered target area is located in an area that prevents occlusion of the microperforations by product, labels or other packages.

Claim 13. (Canceled)

Claim 14. (Previously Presented) The improved packaging material according to claim 1, wherein said polymeric material has a CO_2 transmission rate that is 2.5 to 5.0 times greater than the O_2 transmission rate.

Claim 15 - 20. (Canceled)

Claim 21. (Previously Presented) The improved packaging material according to claim 1, wherein each of said microperforations has an average diameter in the range between 120-160 microns.

Claim 22. (Previously Presented) The improved packaging material according to claim 1, wherein said polymeric material has a CO_2 transmission rate that is 3.4 to 4.0 times greater than the O_2 transmission rate.